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PROSPECTUS

YEARBOOK OF AGRICULTURE 1949

TREES

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Office of Information
United States Department of Agriculture
Room 534, Administration Building
Washington 25, D. C.**

YEARBOOK OF AGRICULTURE 1949

The members of the 1949 Yearbook Committee are:

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L. S. Gross, Forest Service

A. R. Spillers, Forest Service

C. B. Manifold, Soil Conservation Service

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and Agricultural Engineering

F. C. Craighead, Bureau of Entomology and Plant
Quarantine

W. H. Larrimer, Forest Service

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NOTES FOR WRITERS

1. For Whom We Write. We aim at the widest possible audience, not only those already interested and seeking information on trees, forestry, forest management, and forest conservation problems, but all others whose interest can be enlisted. They include:

Farmers and other small landowners. (4,200,000 of them)
City dwellers and others who have no prior interest in forestry matters, but whose interest might be attracted.
Medium and large owners. (3,600 of them)
Forest industries, thousands of them.
Students of forestry, economic geography, conservation, and related subjects.
High school and grade school students (to be reached primarily through school and public libraries)
Businessmen, economists, teachers, government officials, and others needing reference material on forests and forestry.
Other people interested in civic affairs and conservation, who seek background information.
Home owners, who want information on trees and wood products.

2. Objective. Our aim is to provide useful information on outstanding phases of trees, forestry, and wood, and to produce an authoritative compendium and reference work of lasting value. The basic information to be presented is:

Trees are useful things.
They are also outstanding examples of natural beauty.
The trees and other growth which make up our forest resource are of vital importance to the individual and collective welfare and happiness of the American people.
Forest and wild lands can be made and kept productive by good management.
How the individual owner can manage his forest land and care for his shade trees properly.
How the public should manage its forest lands and care for its trees.

The material therefore falls into two main classes:

General information on trees and the forest resource, their character, value, distribution, present condition, future potentialities.

How-to-do-it information on tree care and forest management, with examples of successful operation in the various fields of forestry.

3. Articles must reach the editor by April 30, 1948.

Authors should allow ample time for the customary clearance and technical editing before April 30. The usual practice of the author's own bureau is followed in clearance and technical reading. The Yearbook editor assumes that when a manuscript is submitted to him it is technically accurate and fully approved.

4. Entries in this outline are topics, not necessarily the titles of the articles. Titles that authors use on their manuscripts should be short, accurate, and attractive. Changes may be made in them to conform to typographic style yet to be chosen.

5. Subheads are used to guide the reader, not to compensate for deficiencies in the structure of the article. Subheads should be short, one-line, centered, not underscored. The editor omits or moves subheads as make-up requires.

6. By design, the length of the article is not specified in the assignments -- because a competent writer should not be inhibited in that way; some writers do not (or cannot) observe the suggested word lengths anyway; the writer must himself realize how precious is the available space, and write accordingly.

The Yearbook contains 960 pages of text, which, at 500 words to a printed page, equal 480,000 words. (Table of contents, index, certain charts, art work not otherwise counted, and later assignments might easily add the equivalent of 100,000 words.) By rough calculation, then, the 124 assignments made here should average 3,800 words each. Some will be shorter, of course; some are planned to be longer; some will be discarded because they are late or below standard. Most writers find that 5,000 words (20 typewritten pages) is a fair, convenient length. Most contemporary readers do not like longer articles.

7. But more important than preoccupation with mere length is the intrinsic merit of the article itself. A tremendous amount of information can be packed into 3,000 words -- without sacrificing one iota of essential fact, interest, clarity, beauty of expression, figures of speech, the writer's personality, and the other ingredients of a first-class paper.

That can be done by making every word count. Do not waste space on a long wind-up introduction. Get to the point quickly. Long sentences are not bad in themselves, but they often indicate redundancy. Avoid summaries that merely repeat earlier material. Organize your material; outline your article first; know beforehand what you are going to say; then say it. Get a logical train of thought and follow it. Rework your manuscript several times, asking yourself each time: Is this clear? Is it interesting? Is it terse? Does it say exactly what I mean? If your outline is good, there is seldom a need to back-track (e.g., "as was pointed out in the foregoing paragraph"). Avoid verbosity in favor of the simple, direct English (e.g., "soon" for "in the near future"; "we learned" for "on the basis of a series of experiments it was demonstrated that..."; "in summer" instead of "during the warm summer months," and many more). Try to avoid, as space-wasters, passive verbs. Good paragraphing, so that one discusses only one clearly identified point at a time, saves words and enhances clarity.

At the end of these notes is a discussion of good scientific writing. Those remarks and the foregoing are not to be taken to mean that we are after popular-magazine or Sunday-supplement material or that we use a "readability" scale. We are not writing for fellow scientists only, but for a million alert, interested, informed Americans; we are not writing for an imaginary group of sixth-graders -- nor do we write to show off our 10-syllable words. Good writing is good to everybody.

8. Avoid footnotes. Put the necessary "footnote" material in the text; skip the unnecessary stuff.

9. Literature citations should be grouped alphabetically, by author's name, at the end of the article.

Acknowledgments, if any, (to persons who helped in preparing manuscript or furnishing data, cooperating persons or agencies, etc.) should also be made at the end of the article.

10. Botanical authority will be omitted from scientific names.

Botanical names of trees and plants usually are not used in the text. (To use them over and over throughout the book would take considerable space and irritate many readers.) They are used if clarity demands it, or if common names vary considerably in different parts of the country. At the end of his article, however, the author should group, alphabetically by scientific name, the varieties he mentions in his paper with their common names. Example:

Andropogon scoparius - little bluestem
Andropogon virginicus - broomsedge
Calamovilfa longifolia - prairie sandgrass or sandreed grass

Note: The foregoing applies only to names of trees; scientific names of diseases, insects, etc., (because they are much less frequently used) follow standard practice, i.e., underscored and in parenthesis after the common names.

11. Tables should be clear, well set-up, and meaningful -- not merely supporting data.

12. Charts and line drawings are welcome.

Contributors also are invited to submit photographs -- good ones. Please do not send illustrations that have been frequently or widely used. Photographs must be technically perfect; snapshots by amateurs seldom are good enough to be used because of limitations at the printing office.

13. Instead of identifying the author in a footnote on the first page, we plan to continue the practice of the 1943-1947 Yearbook of printing at the end of the article the author's name, position, division, and bureau, with details of his professional career and experience. The intention is to let the reader know something of the writer's qualifications. Authors are invited to give full details about their work and experience. This material should be on a separate sheet at the end of the manuscript.

14. The Style Manual of the Government Printing Office governs capitalization, compounding, spelling, abbreviations, numerals, punctuation, and syllabication.

The first page of the manuscript should contain the title, in caps and lower case, flush on the left, and directly below it, the name of the writer, as he wants it to appear in print.

The original and the first carbon copy should be submitted to the editor.

All material should be double spaced; single-spacing is not permitted anywhere.

Do not break a paragraph at the end of a page. This does not mean one paragraph to a page -- several paragraphs may be put on the same page so long as the last one does not run over.

Do not crowd the pages.

Margins should be set so that lines average 66 characters and spaces.

Footnotes, if any, should be inserted immediately following the line in which the reference occurs, divided from the text by rules. We try, however, to avoid footnotes.

Figure legends should be written on separate pages.

We try to make charts and tables self-contained and avoid, whenever possible, the often unnecessary "(see Fig. 3)" in the text.

Underscoring a word indicates italics and should be used infrequently and advisedly. Titles of books are underscored.

Citations to literature (if necessary) should be grouped alphabetically by author's name at the end of the article. We deviate from the usual bibliographical practices in order to make the citations completely clear to the nonscientific reader. We do not follow an earlier practice of referring to literature by numbers in parenthesis in the text of an article; rather, where advisable in the text, we name the source and give the title of the book. We avoid meaningless abbreviations in the citations. These citations should be checked carefully with the publication itself as to the author's name, full title of publication, full name of publisher, year, pages referred to, and so on. Do not guess at any of these details.

We avoid the so-called "scientific" (but actually nonscientific) habit of saying in the text, "Brown's findings were..." or "Smith and Jones disproved the theory..." Instead, we gain accuracy and completeness by a phrase like "Lyle P. Brown, in experiments at the Alabama Agricultural Experiment Station, found that..."

15. This Prospectus is not a secret or restricted document, but a great deal of time and effort is saved if each person to whom it is sent will remember that it is for his own use only and not for wide discussion or announcement.

16. Material submitted for publication in the Yearbook should not be published or offered for publication elsewhere before it is printed in the Yearbook or definitely rejected by the editor.

17. The Yearbook Committee plans the scope, content, and structure of the volume and advises the editor on problems of technical accuracy, suitability, and completeness.

Problems of writing, presentation, duplication, illustration, and such are handled directly by author and editor after an article is submitted, not through a Committee Member or bureau official, although the editor usually keeps them informed of such details. There must always be the possibility of an efficient, direct exchange between author and editor.

18. The usual procedure in handling manuscripts is:

(a) Standard practice of clearance, approval, and technical editing.

(b) Submission of manuscript to editor by the bureau or writer by April 30.

(c) First reading by the editor; preliminary letter to the author or consultation between editor and author.

(d) Second reading and editing of related manuscripts together; sometimes this version is not sent to the author.

(e) Retyped manuscript sent directly to author for his approval or changes.

(f) Copy-reading to check points in the Style Manual of the Government Printing Office. Third editing if necessary; type is marked; final details settled.

(g) Galley proof is sent to author for a thorough reading and check of references, bibliography, and other details. A minimum of so-called "author's changes" is permitted -- then mostly to correct mistakes made in the various steps of typing, typesetting, and editing, and to insert important developments since the manuscript was written.

(h) Page proofs are sent to the author for the final check. Only corrections of errors are permitted. Mechanical details (like subheads) can be changed in page proof only with the greatest difficulty and expense.

19. Contributors and other interested persons are invited to submit to Committee Members suggestions for papers not listed in this Prospectus, which is not offered as a final, static document. We want our book to be up to date, fresh, and living -- and different, not a rehash of old material.

Because the actual printing takes at least 6 months and the editing up to 6 months more, as much as a year elapses between the writing of an article and the appearance of the Yearbook. Authors, therefore, should follow through on their manuscripts and be sure that in each of its steps it remains accurate and up-to-date as of that particular date.

20. The points in each assignment are suggestive more than mandatory.

21. The following notes on writing are excerpts from a booklet, The Publication of Research, issued by the Agricultural Research Administration in January 1945; the booklet reproduces a talk by the late Dr. E. W. Allen, who was Chief of the Office of Experiment Stations from 1915 to 1929:

The purpose of writing is not only to express ideas, but to communicate them to others. Science is not inherently dull, heavy, and hard to comprehend; it is essentially fascinating, understandable, and full of charm. It is simple, after it has been worked out, and is capable of being stated in concise terms easily understood.

But to succeed in conveying ideas correctly and in a readable way requires considerable effort on the part of most of us. It calls for time to do it well. It is just as important as making more experiments, although the worker may not like it as well, and it is quite as worthy of his best effort.

The aim in publishing research, as well as in carrying it on, is to leave the field clearer than you found it. If that cannot be done it is doubtful whether a scientific paper is justified. There cannot be clear writing without clear thinking, and when one learns to write clearly, he will in the process learn to think clearly. Indeed it may be doubted whether thought and its expression can be separated.

It is necessary to understand and keep in mind the point of view of those it is desired to reach, the mental background with which the new facts must be harmonized. The writer must know how to present his facts and arguments so that they will fit into the reader's experience and what he already knows. The reader may know something about the subject, but he doesn't know the point of view from which it was taken up, the purpose, and the reasoning, or how the work further clarifies the subject, unless these things are presented in their proper setting.

Clearness is absolutely essential in technical writing. It is not enough to use language that may be understood -- it is necessary to use language that cannot be misunderstood.

Having something to say, therefore, say it in your own way, provided you use good diction, the right word, and a simple form of expression. Above all, make your meaning clear. Read over each sentence to see if it expresses what you desire to say. Eliminate each word that is not necessary to the sense or the spirit of the article. Words are only useful for expressing ideas; fine writing and high-sounding phrases have no place in technical articles. Choose your words with care. Make each sentence convey an idea, and don't try to put more than one idea in a sentence.

Remember the reader. Be sympathetic toward him. He must make some effort, but he is not bound to follow you through. The writer has not the same hold on his audience that the speaker has.

The author must interest and hold the reader if he expects to accomplish his purpose in publication. If a paper is direct and understandable, and has something worth while to say, it will be readable and interesting -- often entertaining. If it is not interesting it will not be read, or only skimmed as a matter of duty. It is not always the fault of the public or of brother scientists if they are not familiar with your published work; a part of the burden rests on you.

Study to communicate the results of research in a way that will involve the least effort on the part of the reader to take them in.

Brevity is another important quality of a technical paper. This does not mean that the presentation should not be adequate to a clear understanding of what is reported and ability of the reader to judge the merits of the contribution; but the length should be proportionate to the actual contribution. Nowhere are more skill and judgment required.

The question of what to leave out will be one for very careful consideration, which frequently cannot be settled at the first writing. On review it may be found that considerable may be left out without sacrificing anything really essential. Descriptions and statements of facts gain force by brevity and by sticking quite closely to the real kernel of the subject.

As a rule, the more definitely a fact has been established by an investigation, the more directly and simply it can be presented. It is the doubtful ones that have to be hedged about with explanations, qualifications, and cautions.

The style of the technical paper should be simple, straightforward, and dignified. It should suggest neither a fairy tale, a sensational newspaper story, nor a sermon, but rather a simple, unaffected, and uncolored account of work done and its application. Accuracy and clearness ought never to be sacrificed to a supposedly more popular style. The presentation should be such as to win the reader's confidence in the thoroughness and reliability of the work reported.

CONDENSED OUTLINE

1949 YEARBOOK
OUTLINE INCLUDING AUTHORS
AS APPROVED BY YEARBOOK COMMITTEE
OCTOBER 9, 1947

A

- I The Tree
- II Trees Around the Home

B

- III Trees in Groves, Woods, and Forests
- IV Protecting Forests Against Fire
- V Protecting the Forest from Insects and Diseases
- VI Small Private Woodlands
- VII Large Private Forests

C

- VIII National Forests
- IX Other Public Forests
- X Recreation in Forests
- XI Forest Wildlife
- XII Forests and Water

D

- XIII Properties, Processing, and Use of Wood

E

- XIV Education for Forestry
- XV Forests in the National Economy
- XVI Forest Land and Timber Resources
- XVII A National Program
- XVIII Appendices

OUTLINE

I. THE TREE

1. Introduction. (Lyle F. Watts)

The importance of trees, wood, and forests; what they mean to individuals, communities, the Nation. A crisp, compact article that seeks to interest the reader and lay the tone and groundwork of the book. The writer should try to prove a major theme and guard against a diffuse catch-all.

2. The Tree as a Living Organism. (Nicholas Mirov)

What is a tree? How a tree grows. Story told by rings. Other aspects of a tree's life -- physiology, anatomy, phenology, dendrology; requirements of soil, water, light, food; enemies of trees (wind, sleet, fire, animals, insects, disease, etc.); friends of trees; longevity; chemistry of wood. Trees and shrubs. Root stocks.

This is a non-technical (but not too general) article that seeks to get the reader into the subject. Not all the items cited need be covered, and more might be added to meet the point of the paper which is that trees don't just grow anywhere; they need care (but they are worth it), and are living individuals.

3. Notable Trees. (Harris Collingwood)

Trees that are outstanding because of their beauty, size, historic associations, connections with a locality or State, and unusual commercial importance. One way of presenting the subject is by 3/4-page pictures (perhaps in color), each with an ample caption. The presentation will serve several purposes: Help identify the main species, interest the general reader, give some foundation for later chapters, provide some outstanding art work, and show graphically the importance of trees in building and beautifying our country. (More specific and complete identification will be taken care of in the appendix.)

This is one of the most important presentations in the entire volume. In this, as in other articles of Section I, we want to start building our book on what the reader already knows and likes. This picture-story also seeks to interest the reader in trees as something immediate and vital to him, rather than as something on a mountainside 2,000 miles away. All sections of the country should be represented.

4. Questions and Answers. (W. W. Bergoffen and others)

The purposes here are to: (a) Answer questions most often asked of foresters and other workers with trees; (b) with cross references, knit rest of book together; (c) give details of problem, solution, status of forests, etc.; (d) make the book complete by giving material that does not fit elsewhere.

Example:

Question: How many kinds of trees are there in the United States?

Answer: Approximately _____.

(See page _____.)

Question: What are the main values of forests?

Answer: As sources of water -- if one considers first the number of persons affected; as conservors of soil -- on the basis of the area involved; as _____, on the basis of _____. Other important uses are

(See pages ___, ___, ___, _____.)

Question: My Lombardy poplar is dying. What should I do?

Answer: _____.

This can be made into an extremely important part of the book; many readers who might skip much of the rest of the text will read this. We can give here many details they otherwise would miss; e.g., the person who does not read the longer material on such an essential topic as forest fires would here be exposed to some of it in capsule form. Here also is a chance to present important aspects of forest policy. It should be carefully prepared, with a number of specific purposes always in mind. Humor has a place; entries should be brief but adequate. The various topics would be grouped -- e.g., fire, care of trees, uses, etc. Some of the material will be based on the manuscripts as they are submitted.

II. TREES AROUND THE HOME

(In this section we give complete, useful information about trees in towns and cities, estates, and farmsteads, as opposed to trees in forests and woods; everything, that is, that a home owner should know about trees. The section is a step in our progression from known to unknown, general to specific.)

5. Kind of Trees to Plant for Each Use. (E. J. Schreiner)

Fitting the trees to the purpose. Characteristics of desirable trees (hardiness, life expectancy, rate of growth, form, flowering, maintenance costs, suitability for particular uses, hazards, storm resistance, type of shade and length of leafy season, wind deflection, pest resistance.)

Dwarf trees; native vs. foreign trees; flowering trees; other ornamentals.

Trees that should not be planted; combination or multiple-purpose trees (fruit, shade, etc.). Where to get stock. Fast-growing trees for special purposes. Succession - temporary trees. Exotic trees: cork oak, Eucalyptus, Camphor, Ailanthus, Chinaberry. Possible mention of fruit, food, and forage trees. Summary tables, if advisable, here or in Appendix.

(Note: This book is concerned with what we think of as forest and shade trees, and only incidentally with other kinds of trees, shrubs, woody plants, and horticulture. The point will be precisely delimited in the preface. Some attention to them here, however, might make for completeness and demonstrate again the many uses of trees.)

6. Trees for the Country Home. (W. H. Larrimer)

Trees for farm pastures, shade, and shelter; trees and grass; dual purpose trees; landscaping with trees; windbreaks.

7. City Trees. (Irving Root)

Trees for parkways, parkings, shade, highway, street, lawns. Specific problems of trees in cities.

8. Trees for Different Regions of the United States. (Elbert Little)

New England, Midwest, South, Sub-tropical (Florida, Texas, California), Plains, Intermountain States, Pacific Coast, East, the desert. Check lists; tables, here or in Appendix.

9. What the Home Owner Should Know About Planting Trees. (T. E. Maki)

Season, soil preparation, site, seedlings that become giants, drainage, etc.; pruning and care of newly planted trees. Small home nursery; comparative costs. Advice to the Home Owner on transplanting and removing large trees -- methods, illustrations, pictures. Advantages of large trees, season for moving, species and condition, methods, care of transplanted trees, comparative costs. How the Home Owner should care for established trees -- pruning, fertilizing. How the Home Owner can diagnose what is wrong with his trees; sunscald and heat, damage, water excess or deficiency, acid and alkali soils, nutritional deficiencies, smoke and fumes, gas and other chemical damage, mechanical injuries, e.g., ice and snow, frost, wind, lightning. Site factors; ground preparation; drought; physiological problems; insects and diseases affecting foliage, twigs, trunk, roots. Diseases, (including Dutch Elm disease briefly), insects, and others. Casual organisms and how they work. Fungi, bacteria, viruses, nature of each and how they attack. Parts of trees affected and damage causes. How spread. Common types of infectious diseases; rusts, leaf spots, galls, witches, brooms, mistletoes, diebacks, wilts, root and stem rots. Examples and illustrations. Treatments for diseases and insects. Principal pests and control. Sprays, schedules, equipment, soil treatments, resistant strains and species. Fungicides, pruning and wound treatments, eradication (including alternate hosts), quarantines, resistant species and strains, management practices.

This is a highly practical, factual presentation. Tables, summary lists, and photographs will be helpful.

III. TREES IN GROVES, WOODS AND FORESTS

(These sections contain material applicable to trees in any kind of group, large or small, as against individual trees, which are discussed in Sections I and II.)

10. The Forest as a Biological Unit. (Jesse Buell)

Light, water, air, nutrients, growth process, and other details of silviculture not discussed elsewhere.

11. Forests and Soils. (John Auten and T. B. Plair)

Species for different soil conditions; influence of forests on texture, porosity, and penetrability of the soil; influence of soil on quality and quantity of timber; climax vegetation; original U. S. forests and effect on land.

12. Forest Types of the United States. (William Dayton)

Perhaps with some historical framework. (Maps and photographs)

13. Logging Methods; Cutting Practices; Harvesting the Crop.
(Fred Simmons and Newell Wright)

Logging equipment development - a silvicultural tool; bull teams; high wheels; logging railroad; power skidding; tractor; bulldozer; arch - super log truck. (Pictures)

14. Silvicultural Methods of Cutting. (L. I. Barrett)

Revegetation. Reproducing the forest.

15. Timber Stand Improvement. (H. E. Ochsner)

Tending the growing forest, cleaning, plantation release, noncommercial thinnings, commercial thinning, sanitation cutting, pruning, aid in control of pests, such as mistletoe and red rot; large-variety forest types and locations; costs, values, future needs.

16. Planting and Seeding. (P. C. Wakely and G. W. Jones)

Overall statement of planting needs, accomplishments, programs. Regional treatment. Reasons for planting. Watershed, timber production, etc. Results; costs; returns; plantation care; correlation with farming, wildlife, grazing, insect hazards, etc. Methods, species, classes of planting stock. National Forests, State, private lands. (National planting program.)

17. Production of Planting Stock. (Floyd Cossitt, C. A. Rindt, and H. A. Cunning)

Selecting the nursery site. Requirements: soil, water, climate, accessibility, cost. Water system: capacity, plans, construction. Improvements. Operation. Sowing. Care. Fertilization. Protection: insects, diseases, rodents, birds. Irrigation. Seedlings. Transplanting. Lifting. Grading. Shipping. Grades and classes of stock. Economics. Tricks of the trade.

18. Tree Seed. (Paul O. Rudolf)

Types of seeds, fruits. Collection. Extraction. Processing. Storage. Testing. Importance of source. (Photographs).

19. Direct Seeding of Trees. (W. E. McQuilken) (cf. #16, 18)

20. Genetics of Trees. (Palmer Stockwell)

21. Safety in the Woods. (Seth Jackson)

Logging. Sawmilling. Planting. Timber stand improvement. Fishing. Fire fighting. Construction. Pictures. This article applies to safety of persons who work in the woods; a later article pertains to safety of picnickers, hikers, campers, etc.

22. Fire as a Tool. (R. M. Conarro)

23. Photographing Forests from the Air. (R. D. Garver)

IV. PROTECTING FORESTS AGAINST FIRE

24. The Problem of Forest Fires and Brief History of the Effort to Deal with Them. (A. A. Brown)

Insects and diseases, and their bearing on fire. Direct and indirect damage - erosion - soil - water - wildlife - change of type. Agencies responsible for carrying on the work. General progress to date.

25. Creating a Fire Organization. (E. Peirce and Carl Gustofson)

Creating a fire organization; systematic protection, which involves much more than fire fighting; the fire warden; how local residents help to protect the forests; planning the organization; training; closures; the part played by roads, trails, lookout houses, fire guard stations, telephone lines and radios.

26. Modern Technology in Forest Fire Control.

Aerial Methods. (Clayton S. Crocker)

Mechanization. (Arthur W. Hartman)

Mechanizing forest fire fighting in the South and Northwest; aerial methods for forest protection (including helicopter and bombing and aerial delivery of hot meals; smoke jumpers; wetting agents.)

27. How a Big Fire Is Fought. (Frank Jefferson)

28. Weather and Forest Fires. (H. T. Gisborne)

Forewarning of forest fires; rating fire danger; how and why fire spreads - fuel, rate of spread - climate - weather.

29. The Significance of Forest Fires to the Average Citizen and His Responsibility in the Job Ahead. (Dick Hammatt)

The parallel between the control of unexpectedly large fires and problems involved in warfare.

V. PROTECTING THE FOREST FROM INSECTS AND DISEASES

30. Insects and the Forest. (Frank C. Craighead)

General review of insect problem. Kinds of damage; extent; importance. Needs. Progress made through biologic studies, direct control, and silvicultural practices.

31. Diseases and the Forest. (Lee M. Hutchins and Carl A. Hartley)

General review of disease problem. Interrelation of diseases, insects, and management to maintaining forest and shade trees. Cooperative attack by several agencies on these problems. Beneficial fungi, mycorrhizae, humus builders, slash decay organisms, edible fungi. Kinds. Damage. Economic importance. Problem and needs.

32. Insect and Disease Surveys. (S. A. Rohwer)

33. Diseases and Insects from Foreign Countries. (G. F. Gravatt and D. E. Parker)

34. White Pine Blister Rust. (J. F. Martin and Perley Spaulding)

Description, extent, importance, control methods. What is being done. Job ahead.

35. Dutch Elm Disease. (R. U. Swingle, E. G. Brewer, or R. R. Whitten)

36. Four Billion Feet of Bug-Killed Timber. (N. D. Wygant and Arthur Nelson)

Engelmann spruce bark beetle epidemic - White River and other National Forests, Colorado. The bug and how it works; life history; control methods; research needs. Economics of epidemic losses. Salvage; access roads. Sawtimber sales. Pulpwood sales. Lessons for the future.

37. The Tussock Moth. (J. C. Evenden and Paul Roberts)

The insect; life history. Spread of epidemic, damage, importance. Control methods, airplane spraying. Results. Future needs. Organization and conduct of control job. Importance of early control of flare-ups.

38. Pine Bark Beetles. (F. P. Keen and R. L. Furniss)

Kinds, life histories, economic importance. Control methods. Future.

39. Spruce Budworm. (R. C. Brown, H. J. MacAloney, and P. D. Dowden)

Economic importance. The insect. Damage. Control methods. Beneficial insects. Future.

40. Heart Rots. (George H. Hepting and Willis W. Wagner)

41. The Airplane in Forest Insect Control. (J. S. Yuill)

42. Breeding and Selecting Trees Resistant to Diseases and Insects.
(J. M. Miller, and R. B. Clapper)

43. The Deterioration of Forest Products by Fungi and Insects.
(T. E. Snyder and C. A. Richards)

44. The Mistletoes. (Lake Gill and Jesse L. Bedwell)

VI. SMALL PRIVATE WOODLANDS

45. How the Small Woodland Can Add to the Income of Owner. (R. E. McArdle)

The importance of the small owners individually and collectively to the Nation - $4\frac{1}{2}$ million owners, 261 million acres, most accessible and best timberland in Nation - probably producing bulk of present cut, also cut most severely and with poorest management.

Need for making woodland pay as part of farm or as investment by nonfarmer. Possibilities in woodland ownership.

Timber as a cash crop; the woodland as a source of employment for owners, helpers, and work stock; the woodland as a source of building materials on the property; good business principles of woodland management; examples of successful woodland management by regions; need of the small woodland owners for technical assistance; and present facilities for assisting small woodland owners. Marketing.

Complexity of the problem; various factors involved; need for technical help; sources of technical assistance; trends in stumpage values; factors influencing stumpage values; need for accurate measurement; how to measure standing trees; how to estimate the volume of logs and pulpwood; need for long-term management plan, including accurate estimate of growth, methods of sale, desirability of marking trees before sale, desirability of thorough knowledge of the market, use of bids, timber contracts, check of the sale.

Promotion, education, and in-the-woods management assistance; need for three different approaches, all correlated. Public agencies' facilities; private agencies, including associations, companies, and consulting foresters; extension foresters; farm foresters, etc.

46. Woodland Management. (J. A. Fitzwater)

Local and national benefits; tremendous loss due to poor stocking; present vs. potential productivity; details of management by types, e.g., management practices in the naval stores belt, management practices in the spruce-balsam fir type, etc. Examples of well-managed small woodlands. Case histories by regions and types. Pictures.

47. Planting the Small Woodland. (W. R. Hine)

National interest in planting. Forty-three million acres of farm woodlands in need of planting; insufficient quantity of planting stock; desirability of more rapid progress - present rate would require 400 years for the Nation to do the job; the need for many small plantings.

Returns from planting to the individual landowner. Where and when to plant (in the event of failure to natural reproduction, or when more rapid returns are desirable), and what to plant by regions and by general soil types, where to obtain planting stock, how to care for planting stock, how to plant; how to develop, care for, and develop plantations. Examples of successful plantings by regions (plenty of pictures)

48. Wildlife in the Small Woodland. (E. H. Graham)

49. Small Logging Jobs. (Art Sowder)

Equipment needed for the small woodland. How to choose and care for axes, saws, and wedges. Hints on their proper use; the construction of skid pans, cross hauls, and logging wagons; the use of trucks and tractors in logging.

Methods. Equipment. Do's and Don'ts. Felling. Bucking. Skidding. Slash disposal. Loading. Hauling. Economics.

Pulpwood: marking, cutting, skidding, peeling, and hauling.
Lumber: marking, felling, logmaking, skidding, and hauling. Tree lengths versus short lengths.

50. Shelterbelts and Windbreaks. (J. H. Stoeckeler and Ross Williams)

A brief history of the Shelterbelt Project. The importance of shelterbelt to Nation, region, and owner; how to develop a shelterbelt, species to use; how to plant and care for a shelterbelt. How trees reduce soil losses from wind erosion by checking the velocity of wind currents. When the velocity of wind currents has been reduced, the result is not only preventing soil losses, but, in addition, windbreaks around homesteads reduce heating fuel costs; around gardens, increase vegetable yields; around orchards, result in a higher quality of fruit because of lessening wind injury; around stock yards, reduce winter feeding cost; and around fields, it is pretty well established that they increase crop yields.

51. Miscellaneous Products from the Small Woodland. (W. K. Williams)

Fuel wood, naval stores, maple syrup, dogwood bolts, veneer logs, handle stock, Christmas trees, etc.; nuts, mistletoe, tannin, cork, medicines, acorns, holly berries, Christmas greens, wreaths, huckleberries, walnuts, medicinal herbs, mushrooms, cones, conks, burls, pipe blocks, shuttle blocks, spanishmoss; ferns, smilax, galax. In each case mention the importance to the woodland owners, the possibility of integrating utilization of minor products with other products, avoid waste, the use of more efficient techniques, examples of successful production. (Pictures)

52. Cooperative Farm Woods Management. (John Keller)

Examples of present day woodland management cooperatives. Some results of their experience. Log yards for auction sales.

VII. LARGE PRIVATE FORESTS

53. Development and Scope of Industrial Forestry. (A. R. Spillers)

Acreage involved, location of development, possibilities for the future. History; character of management; sustained yield effectiveness; tremendous waste due to poor stocking; present vs. potential productivity; local and national benefits; further needs.

54. The Lumber and Paper Industries. (Herbert Stone and H. Andrews)

Investments involved, number of mills, land policies, policies in the open market, development of forestry practices by regions. Case histories from regions 6, 7, 8, and 9. Management of forests - Northeast, South, Northwest.

55. Private Forestry in the South. (C. F. Evans)

The early history, natural advantages, possibilities in the paper industry, lumber industry, and Naval Stores industry. Possibilities of integrated utilization. Case histories.

56. Private Forestry in the North. (Hardy Shirley)

Who owns the large tracts, objects of management, possibilities for the future. Case histories.

57. Private Forestry in the West. (Charles Tebbe)

Last remaining resource of old growth timber, expectation of change to dependence on second growth, development of small sawmills, and pulp industry. Case histories.

58. Industrial Forestry Associations. (W.B. Greeley)

American Forest Products Industry, associations of the lumber industry, the pulp and paper industry, and others.

59. The Naval Stores Industry. (Jay Ward)

Its location and importance, possibilities of dual purpose trees, financial aspects of Naval Stores management. Case histories.

60. The Consulting Forester. (Norman Munster and Arthur R. Spillers)

Brief history of the business, the present status giving numbers by regions, type of work usually involved, possibilities of increasing the business.

61. Railroads' Interest in Forestry. (Robert Hoskins)

Importance of forest products as tonnage for railroads, recognition by railroads of importance of forestry, employment of foresters by railroads.

62. Labor's Stake in Forestry. ()

The worker's dependence upon stable, prosperous forest industries; possibilities of reducing accidents and of improving working conditions.

63. Christmas Tree Industry. (Art Sowder)

How to develop Christmas tree businesses. New techniques in planting, harvesting, marketing.

VIII. NATIONAL FORESTS

64. Origin, Purpose. (C. M. Granger)

Why national. Forest range, wildlife, recreation, watershed, multiple use local benefits. Forest ranges: resource, use, conservation, correlation of grazing with timber, extent, needs, management research, standards, etc.

65. Organization and Administration. (Earl W. Loveridge)

Administration of finances and personnel, resources, etc.

66. Managing National Forest Timber. (I. J. Mason)

Sustained yield objective. Community support. Development and use of intensive silvicultural practices, with examples. Transportation needs. Silvicultural systems. Cutting cycles. Transportation planning. Correlation with other uses. Mention national forests in Puerto Rico.

67. Forestry in the Black Hills National Forest. (A. F. C. Hoffman)

Brief sketch, location, timber stand, importance. Early (pre-National Forest) cutting. First timber sale. Development of local dependence. Development of silviculture. Improved transportation and utilization. Regulation of cut. Integration with other uses.

68. Rebuilding a Southern Forest. (Frank Albert)

Mississippi National Forests. Forests over-cut and burned. Acquisition program starting 1931 (?). Results in 15 years. Fire control, planting, stand improvement. Acute demand for sawtimber, plywood, etc. Big job to build up growing stock. Light cuts - short cutting cycles. What this means to local economy. Pointing the way. Improved practices applied to private lands.

69. Taming a Wild Forest. (J. R. Bruckhart)

The Willamette National Forest, Oregon. Relation of forests to early settlement of valley. Vast unbroken stands. Big trees - rough country. Crude early logging. Development heavy equipment. Destructive logging methods. Changes. Uncontrolled slash burning to controlled disposal. Selective logging. Problems. Progress - development of "patch cutting." Correlation with other uses. A look into the future.

70. Evolution of Intensive Management. (H. B. Wales)

Chippewa National Forest, Minnesota. History of early cuttings. Results. Development of markets. Local industries. Intensification of silviculture. Acquisition. Planting. Contribution to local economy. Correlation with recreation and wildlife. Future trends.

71. Community Support Through Cooperative Sustained Yield Units.
(D. J. Kirkpatrick)

Shelton Cooperative Sustained Yield Unit. Olympic National Forest, Washington.

Brief history of Simpson Logging Company practices. Sawmills and remanufacturing. Coordinated management national forest and private timber. Shelton and McCleary. Logging camp. Job security. Future possibilities for more intensive management, more jobs.

Kootenai Cooperative Sustained Yield Unit, Montana. History. Exploitation of virgin forests. Railroads. Mining. 1910 fire. Early sawmills. Community development. Rexford, Warland, Libby, Troy. Dependence on forests. J. Neils Lumber Company. Fisher River Timber. Character of the unit. Larch problems. Transportation. Sustained yield plans. Community support. Future needs.

72. Pine Management in California. (B. O. Hughes and D. Dunning)

Character of the virgin forest. East side. West side. Climatic characteristics. Influence of topography. Ownership pattern. Early cuttings. The gold rush. Railroads. Importance of water for power and irrigation. Fire story. Insect hazards. Silvicultural practice development on the national forests, species problems. Tree classes. Heavy cutting. Lighter cutting. Risk cutting. Improvement in utilization. Access roads. Future possibilities.

73. Managing Ponderosa Pine in the Southwest. (Otto Lindh)

The type. Silvical characteristics. Importance: local, national. Climate as it affects silviculture. Reproduction problems. Cutting practices. Pre-National Forest logging. Seed trees. Selective cutting. Utilization developments. Railroad logging to truck logging. Future trends.

74. The Forests of Alaska. (B. F. Heintzleman)

Tongass National Forest timber resources. Power. Newsprint. Long-term contracts. Logging. Year-long employment. Correlation with other uses. Possibilities for development. (Photographs)

75. Pinon - Juniper Type in the Southwest. (Quincy Randels)

Size and distribution of type. The tree species. Prehistoric use. Fuelwood. Fence posts. Novelties. Grazing. Wildlife value. Watershed values. Pinon nuts. National forest management

76. The Small Rancher and the National Forest. (W. L. Robb)

Small sawtimber sale for lumber for ranch construction. Cutting fuelwood. Cutting corral poles. Grazing domestic stock. Employment on slash disposal job. This will illustrate multiple use. Can be largely pictorial.

77. Small Sales in Eastern National Forests. (M. A. Mattoon)

Management policies. Rebuilding growing stock. Wide variety species and products. Stand improvement through commercial cutting. Help support local communities. Sale methods. Tree measurement. Lump sum sales.

78. Cooperative Purchasing of National Forest Timber. (J. F. Franson)

The Au Sable Forest Products Association. Cooperative purchasing of small sales of national forest timber. History. Purpose. Results and their application elsewhere.

79. Naval Stores Management. (Carl Ostrom and John Squires)

Chiefly Osceola National Forest and Lake City branch. Planning for forest production with gum yield as one part of the crop. Sawtimber, pulpwood, etc. Turpentine methods. Costs. Yields. Prescribed burning. Recommendations for private owners.

IX. OTHER PUBLIC FORESTS

- 80. Federal. (F. W. Grover)
- 81. State. (Stanley Fontanna)
- 82. County, Community, School, and Memorial Forests. (G. A. Duthie)
- 83. Arboretums. (W. H. Larrimer)

X. RECREATION IN FORESTS

84. The Forests and Recreation. (L. F. Kneipp)

What makes recreation? Economic and social importance of the recreation resource; recreation trends; needs.

85. Recreation in the National Forests. (John Sieker)

Present use; administrative policies; types. Public campgrounds: how used; problems of administration; present and prospective demand; examples. Organization camps: nature and purpose; problems and needs; examples. Winter sports: Growth of this sport; facilities on national forests; problems; future prospects. Wilderness areas and natural areas: policies for designation of wilderness areas; value; problems; list of wilderness areas in national forests. Scenic values: importance; saving scenery while logging timber; scenic strips along highways; streams and lakes. Examples in Region 6. Insect and disease control. Common misuses of recreational areas.

86. Hiking and Trail Clubs Including Youth Hostels. (Myron Avery)

87. Trail Riders. (Shirley Allen)

88. Winter Sports Organization. (Wilford Davis)

89. Recreation in Other Public Forests. (Herb Evison or Conrad Wirth)

State, community, national parks and monuments which are forested.

Recreation on private forests. Youth hostels. Hiking and trail clubs. Trail riders, AFA. Winter sports organizations.

90. Safety for Forest Visitors. (Robert S. Monahan)

Hunting, fishing, hiking, camping, picnicking, skiing. What to do when lost. First aid kits, and other recommended equipment. Also, perhaps something about courtesy and common sense: clean up after you, be careful of matches. Snakes.

(Note: This can be a highly important and interesting section, of wide appeal to city people - that's important! Let's tell campers and such all they need to know to have a good time in our forests. Let's be very specific, even handbookish in places, on where they are to get advice and information, how they can use their stay in the woods not only for fun but also to learn a lot of important things, make friends of foresters, and much more. Pictures.)

XI. FOREST WILDLIFE

91. The Forest Wildlife Resource and Its Management. (Lloyd Swift)

Wildlife is an integral part of the forest, the relationship between food conditions, water, and cover, as they are necessary in the daily and annual activities of the forest wildlife; the relationship of the animal to its habitat; the part that has been played by the hand of civilization in maintaining or destroying the forest as a wildlife habitat. A description of primeval conditions, what happened under early settlement, and as a result of logging and fire, and wildlife trends in response to each of these conditions. The proper management of wildlife in forested areas, covering such items as the correlation of recreation, timber, range and watershed management, etc., for the best interests of wildlife. Techniques and measures that have been found acceptable in and of themselves for wildlife work, i.e., habitat restoration, predator control, artificial restocking, hunt management, etc. Statement on present status of the wildlife in the forested areas of the United States and its values. Throughout, consideration will be given to fish, birds, and other animals, as well as big game.

92. Bringing Wildlife Back to the Blue Ridge. (T. C. Fearnow, with a co-author of Virginia Conservation Commission)

This will be a story of successful forest wildlife management in the East, of bringing fish and game back from virtual extinction, and of its modern day management. It will contain a historical review, pointing out how the forests were exploited and wildlife depleted. Following the establishment of the national forest, it will point out in a general way how wildlife habitats were restored through normal forest administration, and then emphasize how, following the development of a cooperative program, intensive wildlife management is carried out. The complete story of the cooperative aspects of the program will include explanation of the Stamp Act, and its application, the special areas and the wildlife management practices involved and the program of following the jointly prepared plans for restocking, wildlife clearing, and other stamps. It will end with a final statement on the success of the cooperative endeavor in game restoration and the extent of public use and appreciation.

93. Managing Utah's Big Game Crop. (D. I. Rasmussen and Utah Wildlife representative)

This will be a story of wildlife management in the West where the problem was one of utilization, rather than one of restoration. It will contain a historical review covering early conditions, settlement and use of the wild lands, the record of depletion and the restoration, and of the eventual recognition of over-population. It will point out the management difficulties involved, particularly those resulting from inadequate state authority, public resistance to herd control and the controversy between livestock and game interests. It will show how the problem was attacked through winter studies, action programs, and finally the establishment of a Board of Big Game Control. The work and authority of the Board of Big Game Control and its Inter-Agency Committee will be completely covered with appropriate comments upon its satisfactory results.

94. Forests and Fish. (Paul Needham and Chas. M. Elliot)

The streams and lakes of the forested lands of the United States are a natural home of many kinds of both resident and migratory fishes. Many of these are high on the list of the most select game fish. This article will develop that point, as well as describe the characteristics of forest waters which must be maintained in order to insure satisfactory fish populations. The effect of forest removal in channel exposure, channel shifting, fluctuation in flow and temperatures, and in general relation to fish life, will be developed as well as will those practices such as stream bank protection, channel protection, watershed maintenance, and others that may be recommended to maintain desirable stream flows and lake levels. Don't forget that a good fish stream is worth \$500 - \$1,000 a mile.

Management of wildlife on large private forests and on public other than National Forest; see also under small private woodlands.

95. Acorns. (A. A. Downs)

XII. FORESTS AND WATER

96. Function of Watershed and Public Stake in Watershed Management. (G. R. Salmond and E. W. Munns)

Scope - Source of supply; importance of watershed lands, present conditions, critical areas, influences on water yield. As base refer to "You and Your Watershed - What Every Water User Should Know."

Why should management be for public interest and benefits, etc.?

Needs for water volume, quality - control of yield - importance of water resources.

Available supply determines development: Irrigation, Power, Municipal, Industrial.

97. Trees Prevent Soil Losses from Water Erosion by Protecting the Soil from Exposure to the Elements. (Harold Morey and Bud Ellison)

Trees (and other vegetation) perform special functions essential to the beneficial functioning of a watershed - insure stability of the soil reservoir and add to its operative effectiveness. Tree crowns - leaves, branches and trunks - form a thatched roof to check the driving force of raindrops which erode unprotected soil - retard evaporation and snow melting making more water available to the soil. Forest litter of decayed leaves, twigs, and branches form a protective covering for the soil and prevent surface runoff that carries small soil particles away, and forms humus, adding to that part of the soil mantle particularly useful in absorbing water, and creates favorable environment for animal life which increases soil porosity. Tree roots penetrate the soil and help keep the underground water courses open so that infiltration is increased - help anchor the soil in place. These effects from trees result in controlled useful yield - regulated - clear - dependable. Trees use water as the price for the essential, beneficial effects they produce on the water resource.

98. Effects of Timber Management on Water Yields and Stream Flows. (H. G. Wilm)

Correlation of silvicultural practice with water yield. Colorado Rockies. Importance of water yields. Studies. Applications of principles to national forest timber sales.

99. Principles of Good Watershed Management. (Reed Bailey and W. G. Meginnis)

Local benefits and interstate values. How to judge whether watershed is well managed.

Make some reference to effect of grazing on forest watersheds and effect of fire, recreation, and roads, etc.

How can damaged watersheds be repaired?

Contribution: National Forests; State Forests; County Forests; Municipal Forests.

100. Upstream Flood Control. (George R. Phillips and B. Frank)

U.S.D.A. Program - History; Background; Legislation.

101. Research Contribution to Watershed Management. (Geo. Craddock and C. R. Hursh)

XIII. PROPERTIES, PROCESSING, AND USE OF WOOD

102. Importance of Forest Products to the Individual. (D. G. Coleman)

The diversity of ways in which the individual is dependent on wood for shelter, comfort, and high-scale living; why he should be concerned over maintaining the forest resource.

103. Second-Growth Timber Is Different. (Arthur Koehler)

(General on properties.) A general discussion of wood properties and how they lend themselves to wood's manifold uses, its ready workability by the individual.

104. ABC's of Wood Use for the Farm and City Home. (R.P.A. Johnson)

To get satisfactory service from wood the individual doesn't have to be a highly trained technician - a knowledge of the ABC's of wood will do.

105. Wood Seasoning and Moisture Control. (R. C. Rietz)

How wood is seasoned industrially in order to get it to the consumer at the right moisture content and free from seasoning defects.

106. Preservation of Wood for Service. (T. R. Truax)

Simple exposition of the requirements for preservatives and some discussion of the principal preservatives and their appropriate uses.

107. Painting Wood In and About the Farm and City Home. (F. L. Browne)

What paint can and cannot do and essentials of good paint maintenance and application.

108. Gluing of Wood. (D. A. Brouse)

Essentials of gluing with any glue and discussion of old and new glues and what the new glues promise industrially and for use by the individual.

109. Waste Utilization. (C. V. Sweet)

Discussion of the various forms of waste and the diversity of attack required to reduce waste substantially.

110. Is the Prefabricated House All Right? (R. F. Luxford and F. A. Strengo)

Should answer the questions: "Do I dare to invest in a prefabricated house? Are prefabricated houses apt to be short-lived or give excessive maintenance trouble?"

111. What Does Chemical Use of Wood Promise? (A. J. Stamm)

How far can chemical utilization go toward providing outlets for waste, neglected species, etc., in the form of plastics and similar "modern" products.

112. The Forest Products Laboratory (Its Work and Accomplishments).
(G. M. Hunt)

What the Laboratory has done to more than justify its existence.

113. The Forest Products Laboratory (How to Use Its Services and
What to Expect From Them). (F.J. Champion)

XIV. EDUCATION FOR FORESTRY.

114. Training and Education Required. (S. T. Dana)

Development of forestry education, forest schools, career foresters.

115. Other Forest Education. (Julian L. Boatman)

Public schools (study helps - make appendix), 4-H, vocational education, extension; schools of tree surgery (?), summer work. (List of forest schools in appendix).

XV. FORESTS IN THE NATIONAL ECONOMY.

116. The Importance of the Forest Resource. (Edward C. Crafts)

For timber supply, water, grazing, wildlife, recreation, etc. The importance of forests to industry, labor, agriculture, consumer, and to the national economy and security.

117. The Growth of Forestry in America. (W. N. Sparhawk)

Historical. Early exploitation; migration of lumber industry; beginnings of governmental forest work; establishment of national forests and Forest Service (overlaps VIII); Weeks Law, Clarke-McNary Law, McNary-McSweeney Law, etc.; growth of industrial forestry (overlaps VII). Origin and development of forests by regions.

118. Forestry agencies of the United States. (Alfred Hastings)

General description of organization (overlaps VIII), functions, and services of Forest Service and other Federal forestry agencies, State forestry agencies, extension foresters, etc. World forestry organization (overlaps Appendix) and U. S. participation in.

119. Arbor Day. (W. H. Larrimer)

XVI. FOREST LAND AND TIMBER RESOURCES.

120. Timber Resources of the United States. (C. E. Behre)

Extent and present condition of the forests; ownership pattern; character of present stand; growth and drain. Stepping up growth rate through good practice. Summary of the Reappraisal Survey.

121. Status of Forest Management. (Verne L. Harper and Kenneth Davis)

Cutting practices by various classes of ownership; need for better management; problem of small ownerships.

122. Future Requirements for Timber. (A. C. Cline)

Estimated potential requirements; growth needed to meet future needs.

123. The World Forest Situation. (S. B. Show)

Location and extent of forest resources of the world; status of management in other countries; dwindling world-wide timber supply, etc.

XVII. A NATIONAL PROGRAM. (Lyle F. Watts)

124. Lessons from the history of forest use in the United States. Forest problems summarized. Measures needed to attain timber abundance, range stability, adequate watershed protection, etc. Elements of a broad-gauge program. Alternative suggestions. Programs of various agencies. What laymen can do.

(A sharp, succinct presentation, without any hint of pressure or propaganda and written with great finesse and clarity, in which we perform the function of the conclusion of any piece of writing - telling the reader what it all means and what he should do about it.)

APPENDICES FS & I&E (W. P. Everard and Others)

Forest types map of the United States

Map of National Forest System. (Colored end papers; cf. 1943-47 Yearbook)

Important trees of the United States. (Condensed list and descriptions from American Woods Series), with accepted common names.

Keys to important trees.

Keys to important woods.

Recommendations of trees for various uses, places, etc.

National ranges for various species.

List of State trees.

List of State Forestry agencies.

List of National Forests.

List of Forest Service Experiment Stations.

Statistical data and check lists: Forest areas, ownership, stands, growth, and drain.

List of community forests.

List of Forestry schools.

List of Natural Research areas.

List of Wilderness areas.

World Forestry organizations.

Forest Service signs.

Forestry legislation

 Federal

 State

 Statistics in all reappraisal reports or refer to them.

Glossary (?)

Bibliography (?)

Brief statements presenting the relative forest areas and timber volumes in private ownership and in public ownership. Present private holdings by small, middle and large ownerships; present public holdings by national forest, other federal, state, county, community, and other. Include a brief statement of the objectives, functions and activities of each major class of public forest land ownership. This statement as a whole would give a broad, over-all picture of the relative importance and place of private and public ownership of forest land in this nation with information on the major units of each class of ownership. Refer to Section IX for more detailed data concerning the public ownership groups.

